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| SERIAL NUMBER | FILING DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NO. |
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| 08/682,859 | 07/12/96 | NORDIN | P 38600.0001 (B) |

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|----------|--------------|
| DOWNS, R | |
| ART UNIT | PAPER NUMBER |
| 2762 | 10 |

DATE MAILED: 01/26/98

Please find below a communication from the EXAMINER in charge of this application.

Commissioner of Patents

First Office action -

Office Action Summary

Application No.
08/682,859

Applicant(s)
NORDIN ET AL.

Examiner
ROBERT W. DOWNS

Group Art Unit
2762



☒ Responsive to communication(s) filed on Nov 17, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-202 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☒ Claim(s) 1-41, 43-46, 48-72, 74-77, 79-95, 167-182, 184-200, and 202 is/are allowed.

☒ Claim(s) 42, 47, 73, 78, 96, 106, 113, 115, 120, 122, 183, and 201 is/are rejected.

☒ Claim(s) 97-105, 107-112, 114, 116-119, 121, and 123-166 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4-8

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

x *Substitute PTO-948*

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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1. Claims 9-203 have been renumbered pursuant to 37 CFR 1.126 to numbers 8-202, respectively. This Office action reflects those new numbers.
2. References listed on some of the Form PTO-1449's were not found with the application file. Specifically, the missing references are those listed on Paper #4 as 'BK' to 'CH', and all references listed on Paper #6. Subsequently, the references found in related application Serial No. 08/679,555 were considered in response to the IDS. It is requested that the missing references be sent in response to this Office action.

In addition, some of the other references were listed without publication dates, and were not considered at this time. To be considered, the papers should be listed on a new Form PTO-1449 along with their publication dates, including month and year of publication.

3. Claims 42, 47, 73, 78, 113, 115, 120, 122, and 183 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 42, 47, 73, 78, 113, 115, 120, 122, and 183 contain the incorrect phrase "in in which". Correction is required to delete a redundant 'in.'

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 96, 106 and 201 are rejected under 35 U.S.C. 102(b) as being anticipated by P. Nordin, "A Compiling Genetic Programming System that Directly Manipulates the Machine Code," (1994).

Nordin describes a genetic program that manipulates machine code segments. The evolved segments are represented in binary machine code and are invoked with a C function call. The program performs repeated type cast between pointers to arrays and pointers to functions. The structure of the machine code includes a header, instruction body, footer, and return (see Fig. 14.2), wherein an instruction can contain an operator, operand pair. Only instructions are subject to genetic operators, i.e. the header, footer, and return instruction are protected from change by the genetic operators. The instruction set uses two registers (see section 14.2.5). The genetic program operates according to a genetic algorithm having selection, mutation, and crossover (see section 14.2.6 and Figure 14.5). The system was implemented on a SUN SPARCSTATION with a SUN C-language compiler.

6. Claims 201, 96 and 106 of this application conflict with claims 1, 39, 45, and 48 of Application No. 08/674,337. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one

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application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

7. The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and © may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 96, 106 and 201 are provisionally rejected under the judicially created doctrine of double patenting over claims 1, 39, 45, and 48 of copending Application No. 08/674,337. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common

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subject matter, as follows: claim 1 constitutes claim 201 in the present application, claims 39 and 45 together constitute claim 96 in the present application, and claim 48 at least includes the limitation in claim 106 in the present application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

9. Claims 1-41, 43-46, 48-72, 74-77, 79-95, 167-182, 184-200, and 202 are allowed.
10. Claims 97-105, 107-112, 114, 116-119, 121, and 123-166 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Downs whose telephone number is (703) 305-9642.

RWD
January 21, 1998

Robert W. Downs
ROBERT W. DOWNS
PRIMARY EXAMINER